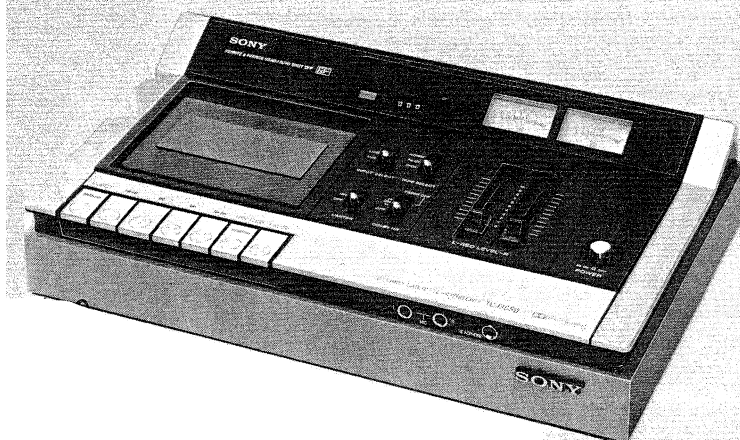


TC-135SD

*AEP Model
UK Model
E Model*

DOLBY FM

*US Model
Canadian Model*



STEREO CASSETTE-CORDER

SPECIFICATIONS

Power Requirements:	120 V ac, 60 Hz (USA Type-1 and Canada Model) 110, 127, 220, 240 V ac, 50/60 Hz (AEP and UK Model) 100, 110, 120, 127, 220, 240 V ac, 50/60 Hz (USA Type-2 and E Model)	Record Bias Frequency:	105 kHz
Power Consumption:	7 W	Inputs:	MIC 2 for low impedance microphone Sensitivity: 0.2 mV (–72 dB) LINE IN 2 Impedance: 100 k Ω Sensitivity: 0.06 V (–22 dB)
Track System:	4-track, 2-channel stereo	Outputs:	LINE OUT 2 load impedance: more than 10 k Ω Normal level: 0.44 V (–5 dB) with 100 k Ω load (LINE OUT maximum) HEADPHONE 1 load impedance: 8 Ω
Tape Speed:	4.8 cm/s (1 $\frac{7}{8}$ ips)	REC/PB Connector:	(AEP, UK and E Model) Input impedance: less than 10 k Ω Output impedance: less than 10 k Ω
Frequency Response:	DOLBY* NR OFF NORMAL: 30 ~ 13,000 Hz (NAB) 40 ~ 11,000 Hz (DIN) Fe-Cr, CrO ₂ : 30 ~ 15,000 Hz (NAB) 50 ~ 14,000 Hz $\pm$ 3 dB (NAB) 40 ~ 14,000 Hz (DIN)	Dimensions:	390 (w) x 110 (h) x 250 (d) mm 15 $\frac{3}{8}$ (w) x 4 $\frac{1}{4}$ (h) x 9 $\frac{3}{4}$ (d) inches
Total Harmonic Distortion:	1.7 %	Weight:	3.6 kg, 8 lb 3 oz
Wow and Flutter:	0.1 % (RMS) weighted (NAB) $\pm$ 0.2 % (DIN)		
Signal-to-Noise Ratio:	DOLBY* NR OFF NORMAL: 52 dB at peak level (NAB) Fe-Cr: 54 dB at peak level (NAB) 58 dB (DIN) CrO ₂ : 54 dB at peak level (NAB) DOLBY* NR ON Improved: 5 dB at 1 kHz		

for US and Canadian Model
This set is equipped with DOLBY FM circuit.

*'Dolby' and the double-D symbol are the trade marks of Dolby Laboratory Inc. Noise reduction system manufactured under license from Dolby Laboratory Inc.

0 dB = 0.775 V

SONY
SERVICE MANUAL

TC-135SD

IDENTIFICATION OF SET

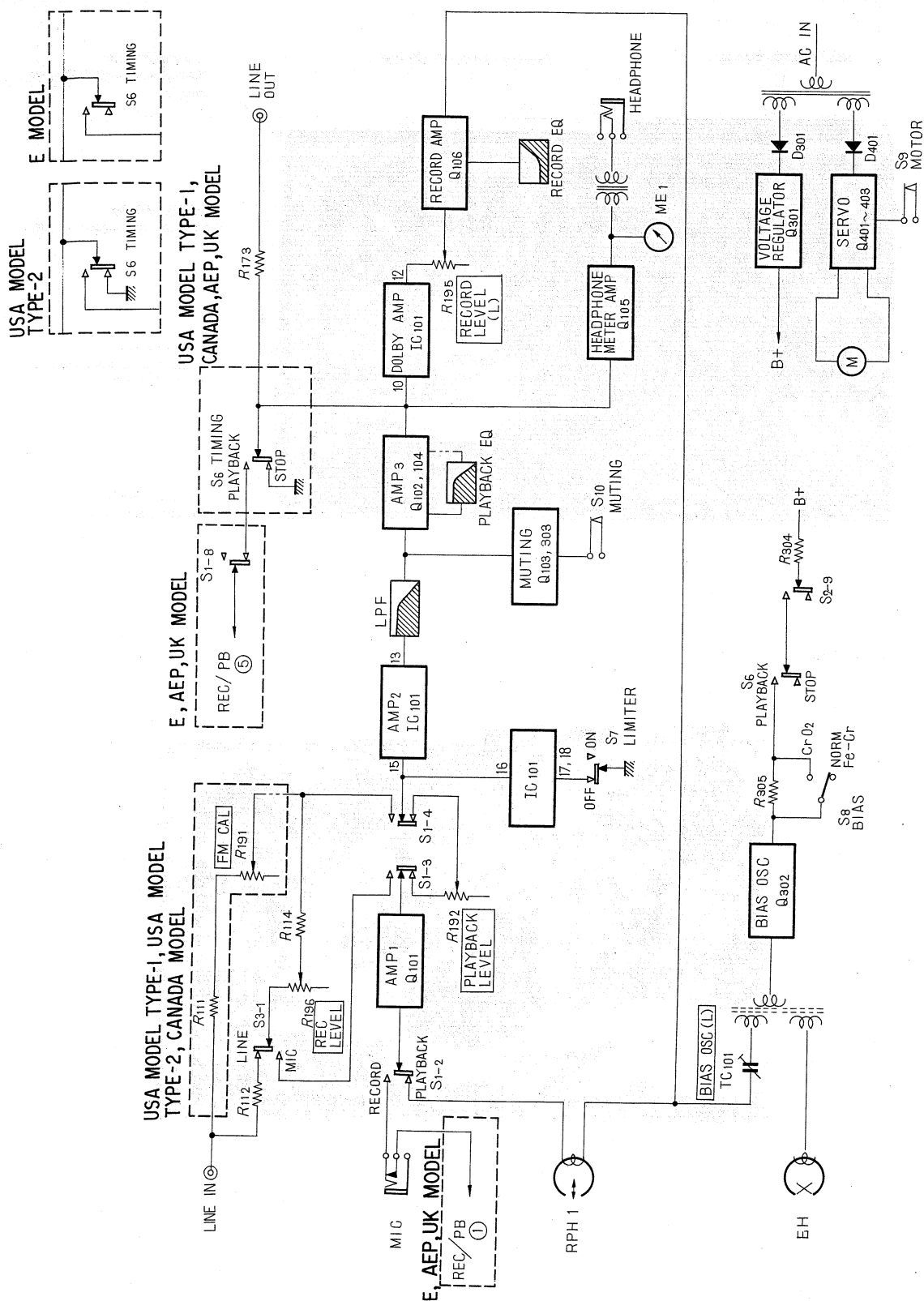
TC-135SD is classified by the specification label as shown below.

	Specification Label	Applicable Page
UK and AEP Model		
AEP Model		Mounting Diagram on page 14-16. Schematic Diagram on page 17-19.
E Model		
Canada Model		
USA Type-1 Model		Mounting Diagram on page 20-22. Schematic Diagram on page 23-25.
USA Type-2 Model		

SECTION 1

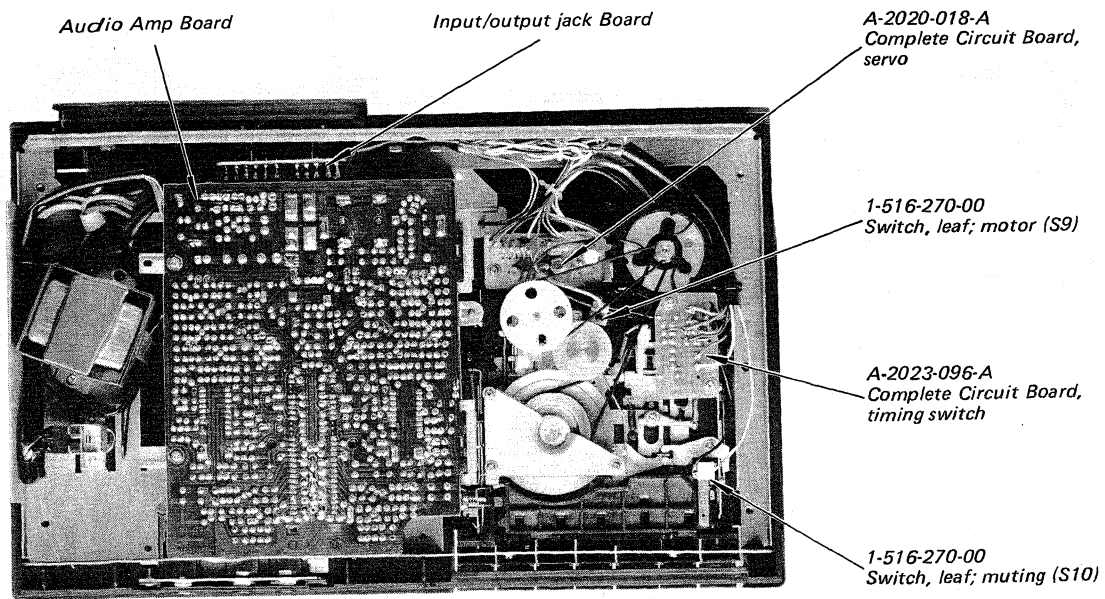
OUTLINE

1-1. BLOCK DIAGRAM

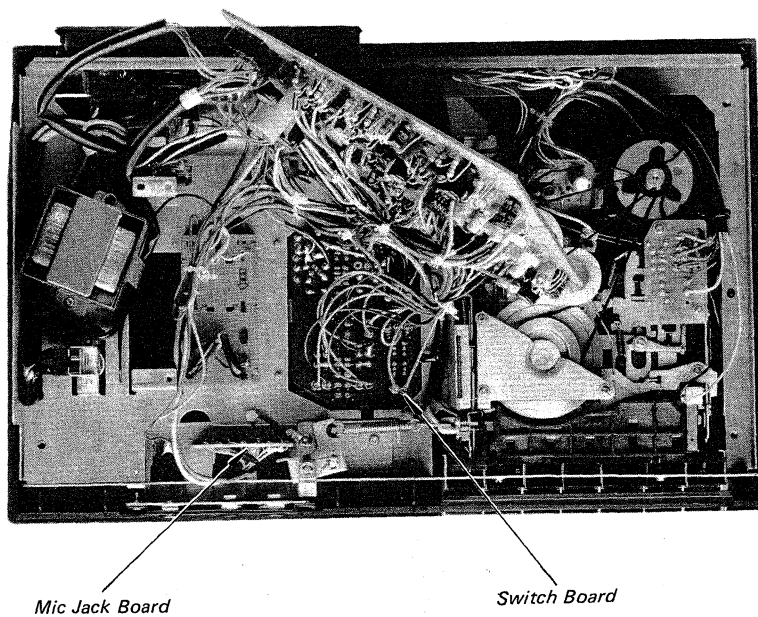


C-135SD

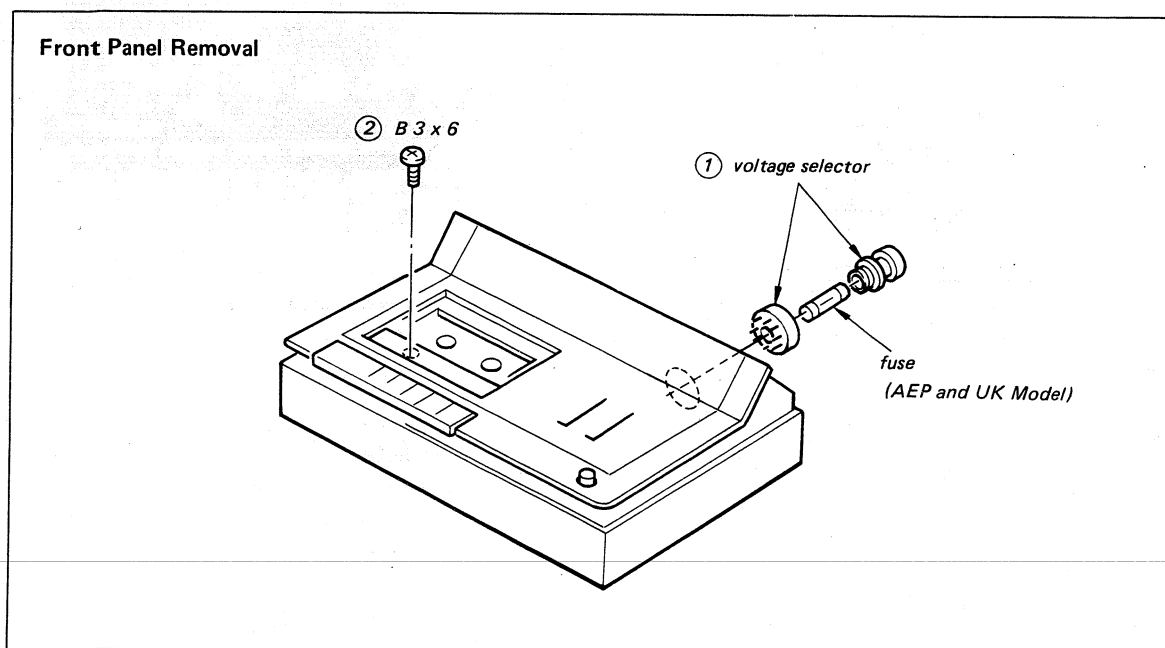
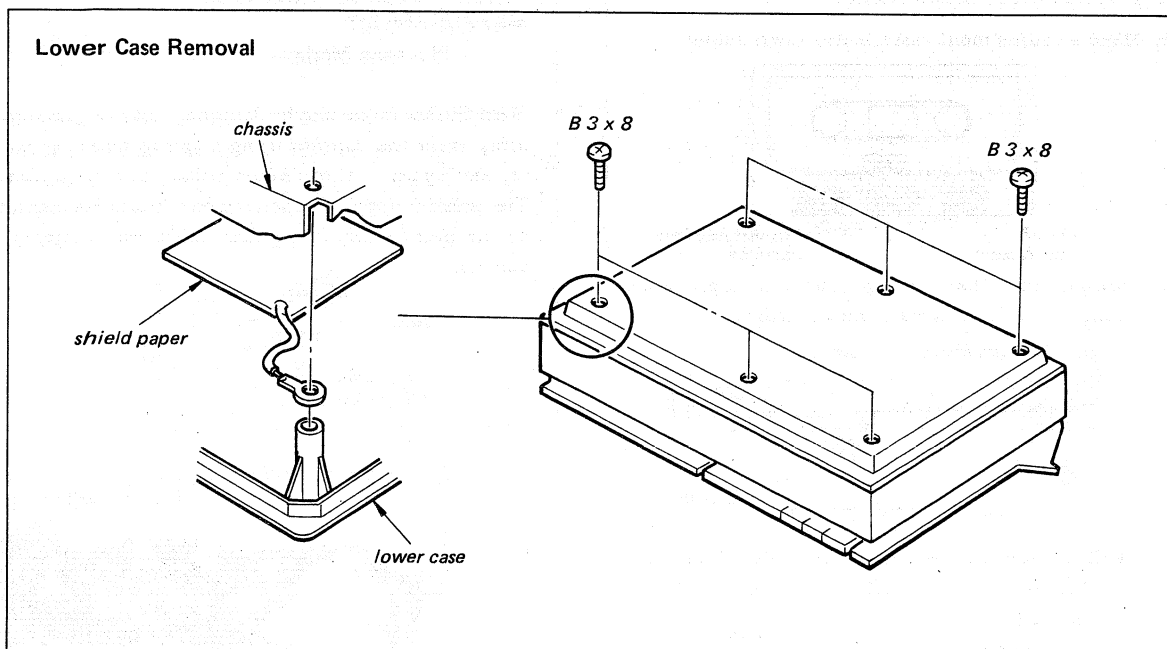
1-2. INTERNAL VIEW (1)



1-3. INTERNAL VIEW (2)



1-4. DISASSEMBLY

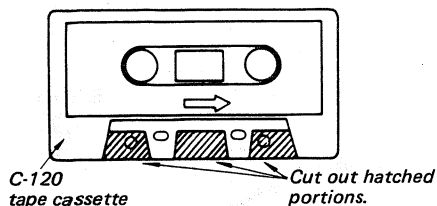


SECTION 2 ADJUSTMENTS

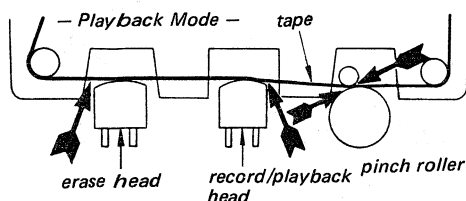
2-1. MECHANICAL ADJUSTMENTS

HEAD HEIGHT ADJUSTMENT

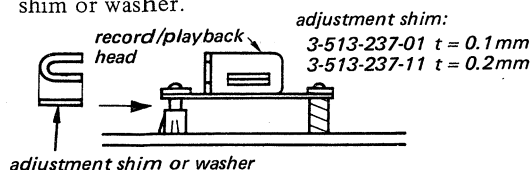
1. Make an adjustment cassette as shown below.



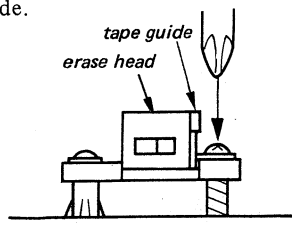
2. Viewing from the top, tape curl and tape bends should not exist at the arrowed portions.



3. When a tape curl exists at the record/playback head, adjust the head height by using adjustment shim or washer.



4. When a tape curl exists at the erase head, adjust the head height by adjusting the screw at the tape guide side.



5. After the adjustment, fix the adjusted screw.

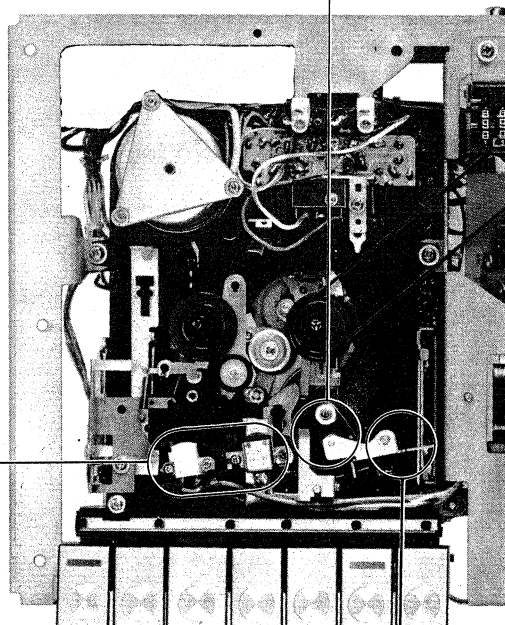
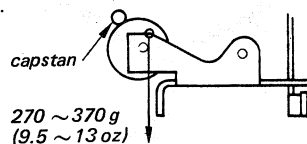
Reference Datum

1. Fast forward torque: 35 ~ 50 g·cm
(0.49 ~ 0.69 oz·inch)
deviation: less than 5 g·cm
(0.07 oz·inch)
2. Back tension torque: 2.0 ~ 3.0 g·cm
(0.028 ~ 0.042 oz·inch)
3. Fast forward and rewind torques: 55 ~ 95 g·cm
(0.77 ~ 1.32 oz·inch)

PINCH ROLLER PRESSURE MEASUREMENT

— Playback Mode —

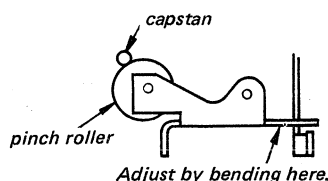
With the set in the playback mode, pull the pinch roller away from the capstan using a spring scale, as shown in the figure. Allow pinch roller to return slowly. The pressure (spring scale tension) should be measured at the point where the pinch roller just contacts the capstan.



PAUSE TIMING ADJUSTMENT

— Stop Mode —

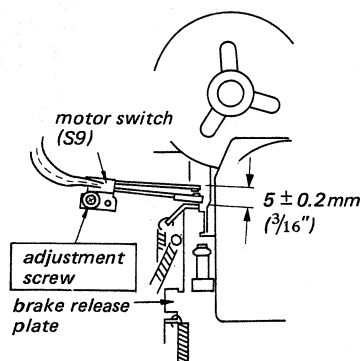
1. The take-up reel should touch the tension pulley.
2. Slowly press PAUSE button. First, the pinch roller should release from the capstan. Next, the tension pulley should release from the take-up reel. Under this condition, adjust the position of the pinch roller by bending the specified part.



MOTOR SWITCH (S9) POSITION ADJUSTMENT

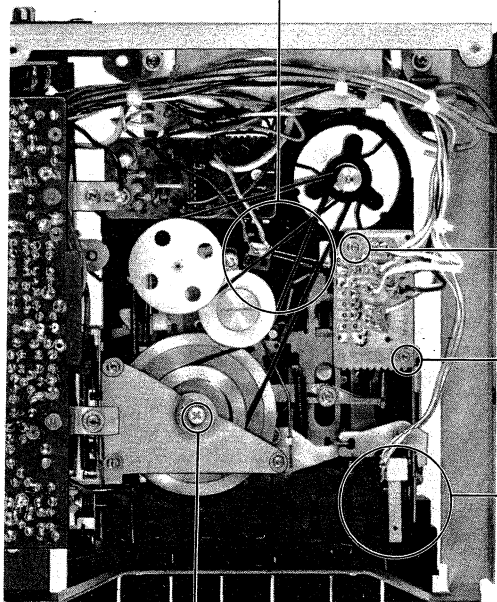
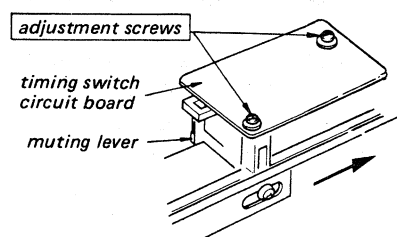
— Stop Mode —

1. Loosen the adjustment screw and adjust the switch position so that the gap of the switch leafs becomes $5 \pm 0.2 \text{ mm}$ ($\frac{3}{16}''$).
2. After the adjustment, secure the screw with a suitable locking compound.


TIMING SWITCH (S6) POSITION ADJUSTMENT

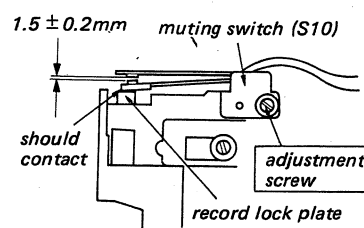
— Stop Mode —

1. Loosen the adjustment screws and adjust the position of the timing switch circuit board in the arrowed direction so that the muting lever just contacts the switch hole and the switch starts to move.
2. After the adjustment, secure the screws with a locking compound.

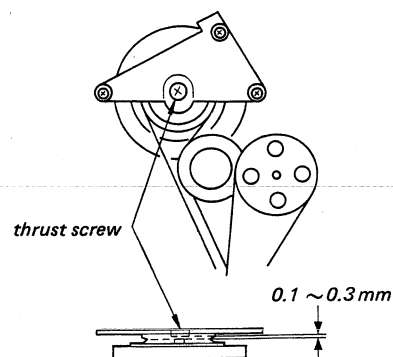

MUTING SWITCH (S10) POSITION ADJUSTMENT

— Stop Mode —

1. Loosen the adjustment screw and adjust the switch position so that the gap of the switch contacts becomes $1.5 \pm 0.2 \text{ mm}$.


FLYWHEEL THRUST PLAY ADJUSTMENT

1. Carefully tighten the thrust screw until it touches the capstan shaft.
2. Loosen the thrust screw $\frac{1}{5}$ to $\frac{3}{5}$ turns so that the thrust play becomes $0.1 \sim 0.3 \text{ mm}$.
3. After the adjustment, secure the screw with a suitable locking compound.



2.2. ELECTRICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with an alcohol moistened swab:
 - * record/playback head
 - * erase head
 - * capstans
 - * pinch rollers
 - * rubber belts
 - * idlers
2. Demagnetize record/playback head with a head demagnetizer.
3. Do not use magnetized screwdriver for adjustments.
4. After the adjustments, apply a small amount of a locking compound to the parts adjusted.
5. The adjustments should be performed in the order arranged in this service manual.
6. The adjustments should be performed for both L-CH and R-CH with rated power supply voltage unless otherwise specified.
7. The record and playback level adjustments should be carefully performed.
8. Tapes required:
 - 1) blank tapes (completely erased with bulk eraser)
 - SONY CS-10 (HF)
 - CS-20 (CrO₂) with two extra holes
 - CS-30 (Fe-Cr)
 - 2) test tapes
 - SONY P-4-A81 (6.3 kHz, -10 dB)
 - P-4-L81 (333 Hz, 0 dB)
 - WS-48 (3 kHz, 0 dB)
9. The switches and the controls should be set as follows unless otherwise specified.
 - DOLBY NR switch: OFF
 - LIMITER switch: OFF
 - TAPE SELECT switch: NORMAL

Normal Input Level

	MIC	LINE IN
source impedance	300 Ω	10 k Ω
input level	0.77 mV (-60 dB)	0.25 V (-10 dB)

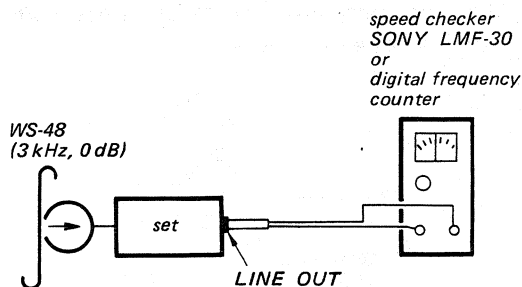
Normal Output Level

	LINE OUT
load impedance	100 k Ω
output level	0.44 V (-5 dB)

1. Tape Speed Adjustment

Procedure:

Mode: Playback



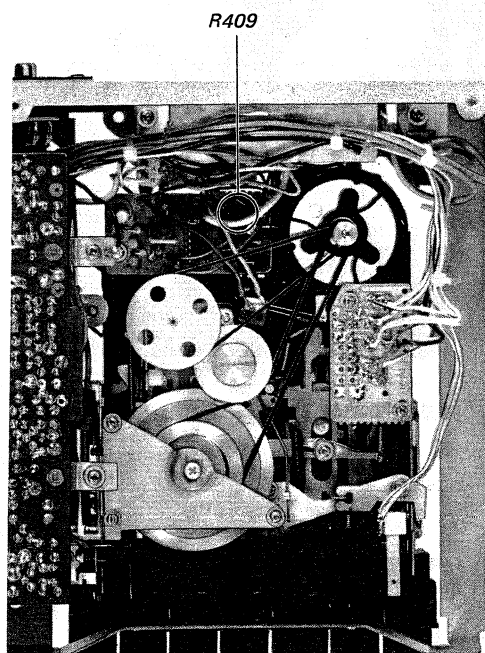
Adjust R409 to satisfy the specification.

Specification:

speed checker	digital frequency counter
-1 ~ +1 %	2,970 ~ 3,030 Hz

Frequency difference between beginning and end of tape should be within 1 % (30 Hz).

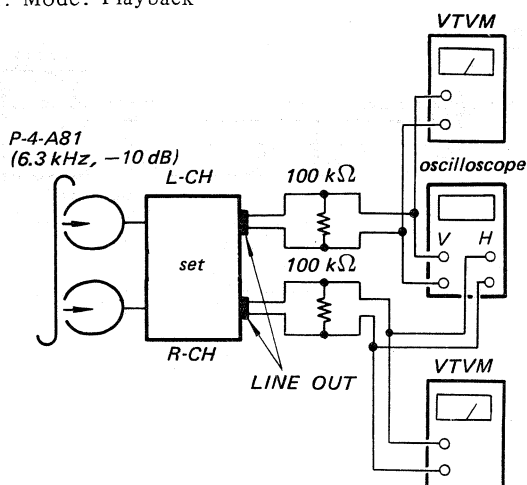
Adjustment Location:



2. Record/playback Head Azimuth Adjustment

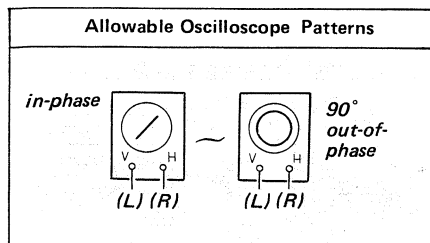
Procedure:

1. Mode: Playback



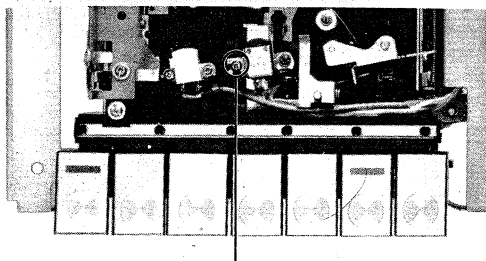
2. Adjust azimuth adjustment screw to obtain the highest VTVM readings at each channel. If the both readings cannot be obtained at the same screw-position, take the midway between the both positions of the screw. Level drops at each channel should be within 0.5 dB.

- 3.



4. Assure that LINE OUT level difference does not change when the mode is changed from playback to stop several times.

Adjustment Location:

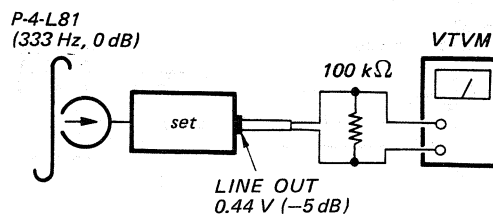


record/playback head azimuth adjustment screw

3. Playback Level Adjustment

Procedure:

1. Mode: Playback



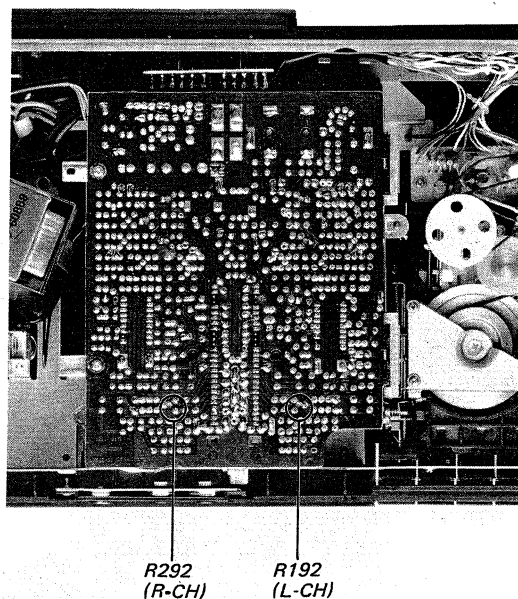
Adjust R192 (L-CH) and R292 (R-CH) to obtain 0.44 V (-5 dB) VTVM reading.

2. Assure that the LINE OUT level does not change when the mode is changed from playback to stop several times.

Specification:

LINE OUT level: 0.39 ~ 0.49 V
(-5 dB $\pm$ 1 dB)

Adjustment Location:



R292
(R-CH)

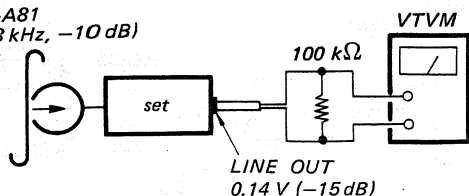
R192
(L-CH)

4. Playback Equalizer Adjustment

Procedure:

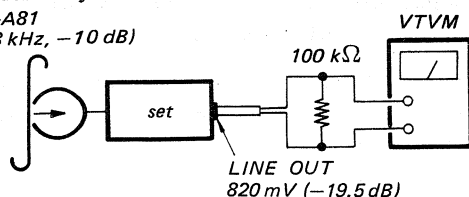
1. TAPE SELECT switch: NORMAL
Mode: Playback

P-4-A81
(6.3 kHz, -10 dB)



2. TAPE SELECT switch: CrO₂ or FeCr
Model: Playback

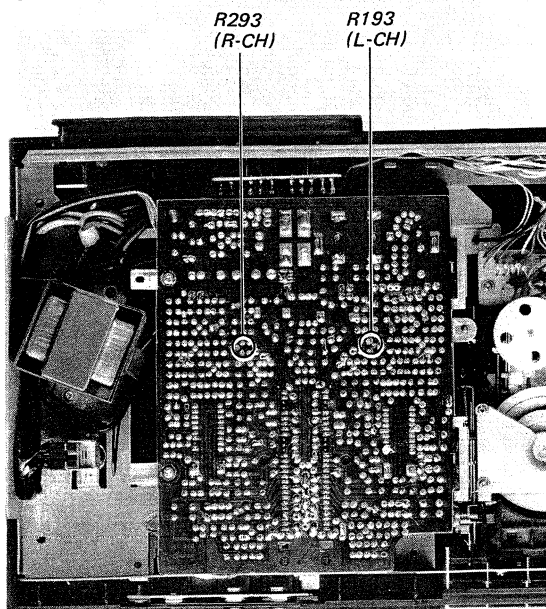
P-4-A81
(6.3 kHz, -10 dB)



Adjust R193 (L-CH) and R293 (R-CH) to obtain the LINE OUT voltage 4.5 dB lower than that obtained in step 1 above.

Specification: Level difference is -4.5 dB
± 2 dB lower than that of Step 1.

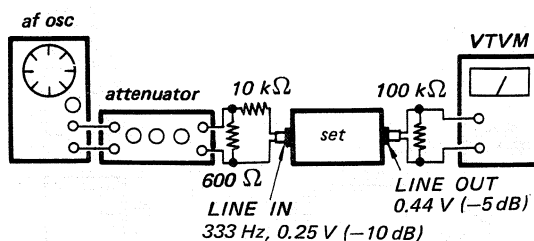
Adjustment Location:



5. VU Meter Calibration

Procedure:

1. Mode: Record



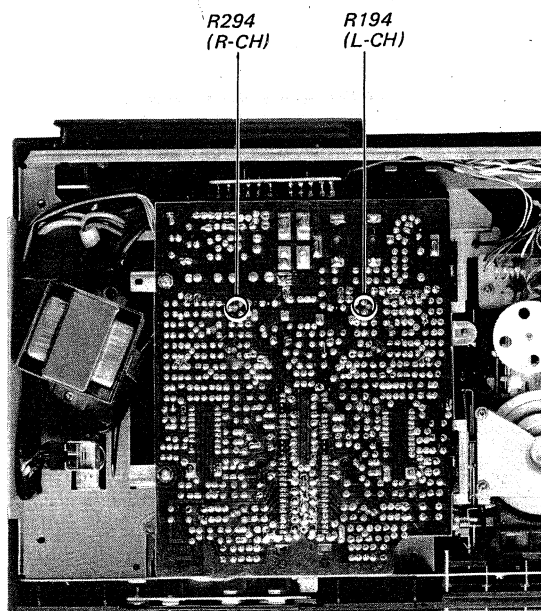
- 2.

Adjust	VU meter reading: 0 VU
R194 (L-CH) R294 (R-CH)	

Specification:

When the LINE IN level is adjusted to make 0 VU indication, VTVM reading should be 0.42 ~ 0.46 V (-5.5 ~ -4.5 dB).

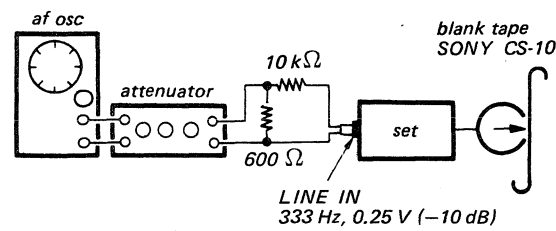
Adjustment Location:



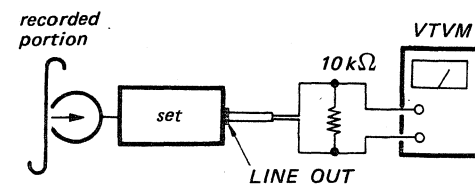
6. Record Level Adjustment

Procedure:

1. Mode: Record



2. Mode: Playback



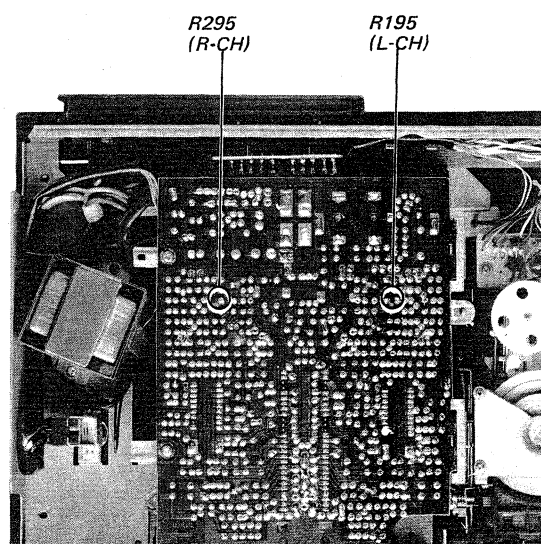
Adjust R195 (L-CH) and R295 (R-CH) to obtain 0.44 V (-5 dB) VTVM reading.

3. Change the blank tape to CS-20 and CS-30, and perform the same record and playback procedure. Measure LINE OUT level.

Specification:

SONY tape	LINE OUT level
CS-10	0.44 V (-5 dB, reference)
CS-20	0.39 ~ 0.49 V (-6 ~ -4 dB)
CS-30	

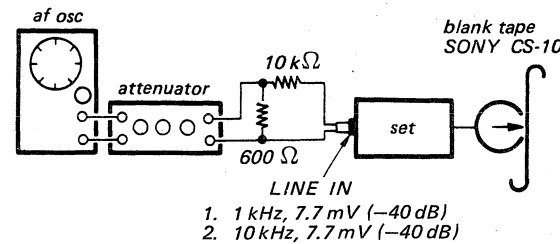
Adjustment Location:



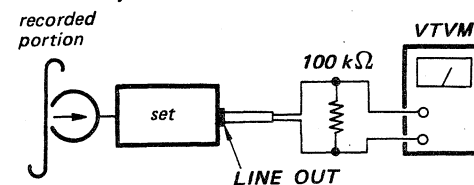
7. Record Bias Adjustment

Procedure:

1. Mode: Record



2. Mode: Playback



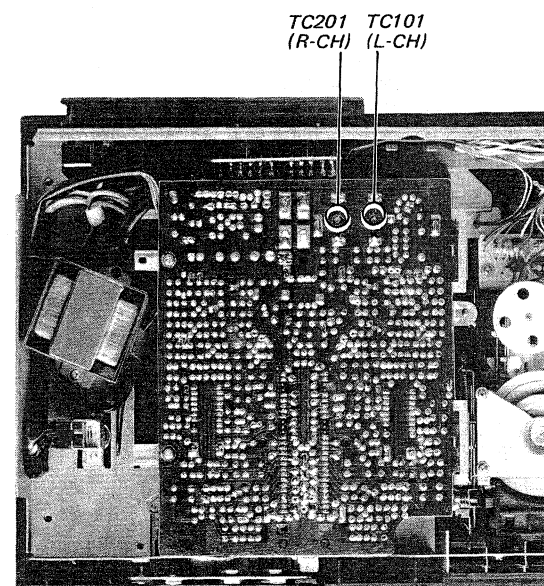
Adjust trimmers TC101 (L-CH) and TC201 (R-CH) to obtain 10 kHz-signal level 0.5 dB lower than that of 1 kHz.

Note: When 10 kHz output level is too low, decrease capacitance.

Specification:

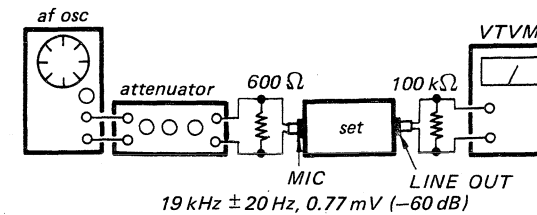
10 kHz signal level is 0.5 dB $\pm$ 1 dB lower than that of 1 kHz signal.

Adjustment Location:



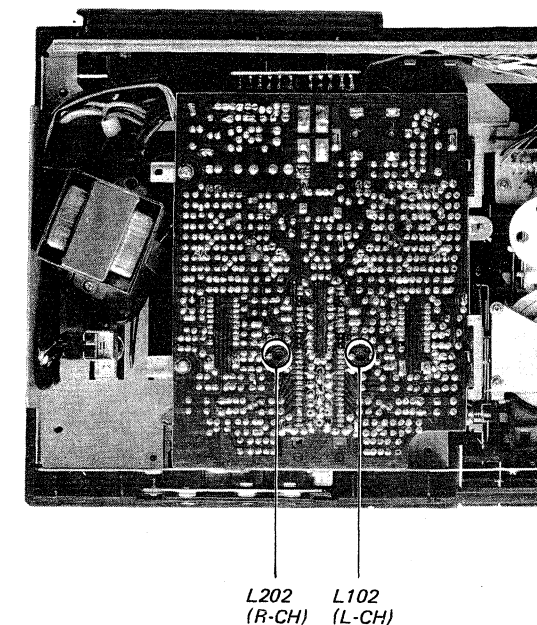
8. 19 kHz Filter Adjustment

1. Mode: Record



Adjust L102 (L-CH) and L202 (R-CH) for minimum VTVM reading.

Adjustment Location:



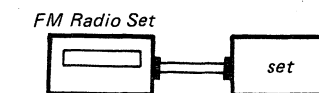
9. Dolby-FM Calibration (USA and Canada Model)

Settings:

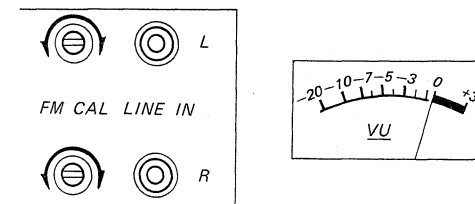
FM Radio Set: non-Dolby FM position
DOLBY NR switch: DOLBY FM position
LIMITER switch: OFF position

Procedure:

1. Mode: record



2. Adjust the record level with the FM CAL controls on the rear panel. While receiving the Dolby Level calibration tone from the FM broadcasting station, set the pointers of the VU meters to the 0 VU position.

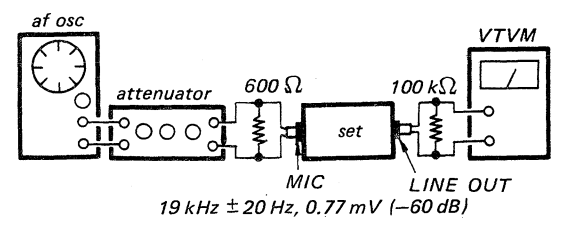


Note:

- Once the FM CAL controls are set, readjustment is not required unless the control setting or receiving condition is changed.
- The LINE input level controls are inoperative in Dolby FM recording.
- The record level is fixed by the Dolby Level calibration tone transmitted from the broadcasting station. Readjustment of record level is not possible even when the PEAK level indicator illuminates.
- During recording, the decoded Dolby FM signals to be recorded can be monitored.
- For playback of Dolby FM recorded tape, be sure to set the DOLBY NR switch to ON position.
- When recording other programs, be sure to set the DOLBY NR switch either at ON or OFF position.

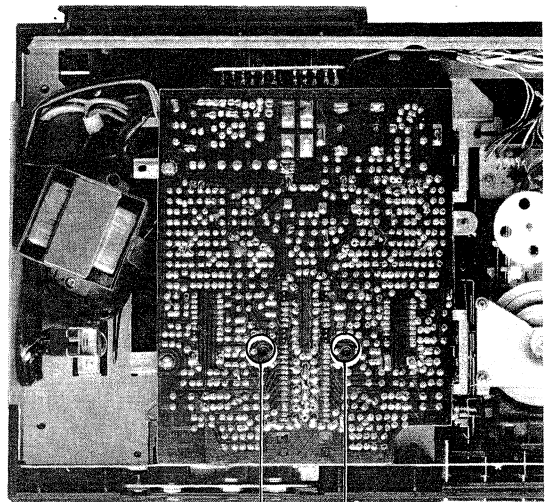
8. 19 kHz Filter Adjustment

1. Mode: Record



Adjust L102 (L-CH) and L202 (R-CH) for minimum VTVM reading.

Adjustment Location:



L202 (R-CH) L102 (L-CH)

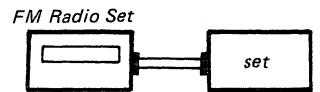
9. Dolby-FM Calibration (USA and Canada Model)

Settings:

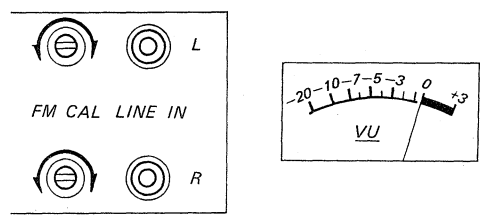
FM Radio Set: non-Dolby FM position
DOLBY NR switch: DOLBY FM position
LIMITER switch: OFF position

Procedure:

1. Mode: record



2. Adjust the record level with the FM CAL controls on the rear panel. While receiving the Dolby Level calibration tone from the FM broadcasting station, set the pointers of the VU meters to the 0 VU position.



Note:

- Once the FM CAL controls are set, readjustment is not required unless the control setting or receiving condition is changed.
- The LINE input level controls are inoperative in Dolby FM recording.
- The record level is fixed by the Dolby Level calibration tone transmitted from the broadcasting station. Readjustment of record level is not possible even when the PEAK level indicator illuminates.
- During recording, the decoded Dolby FM signals to be recorded can be monitored.
- For playback of Dolby FM recorded tape, be sure to set the DOLBY NR switch to ON position.
- When recording other programs, be sure to set the DOLBY NR switch either at ON or OFF position.

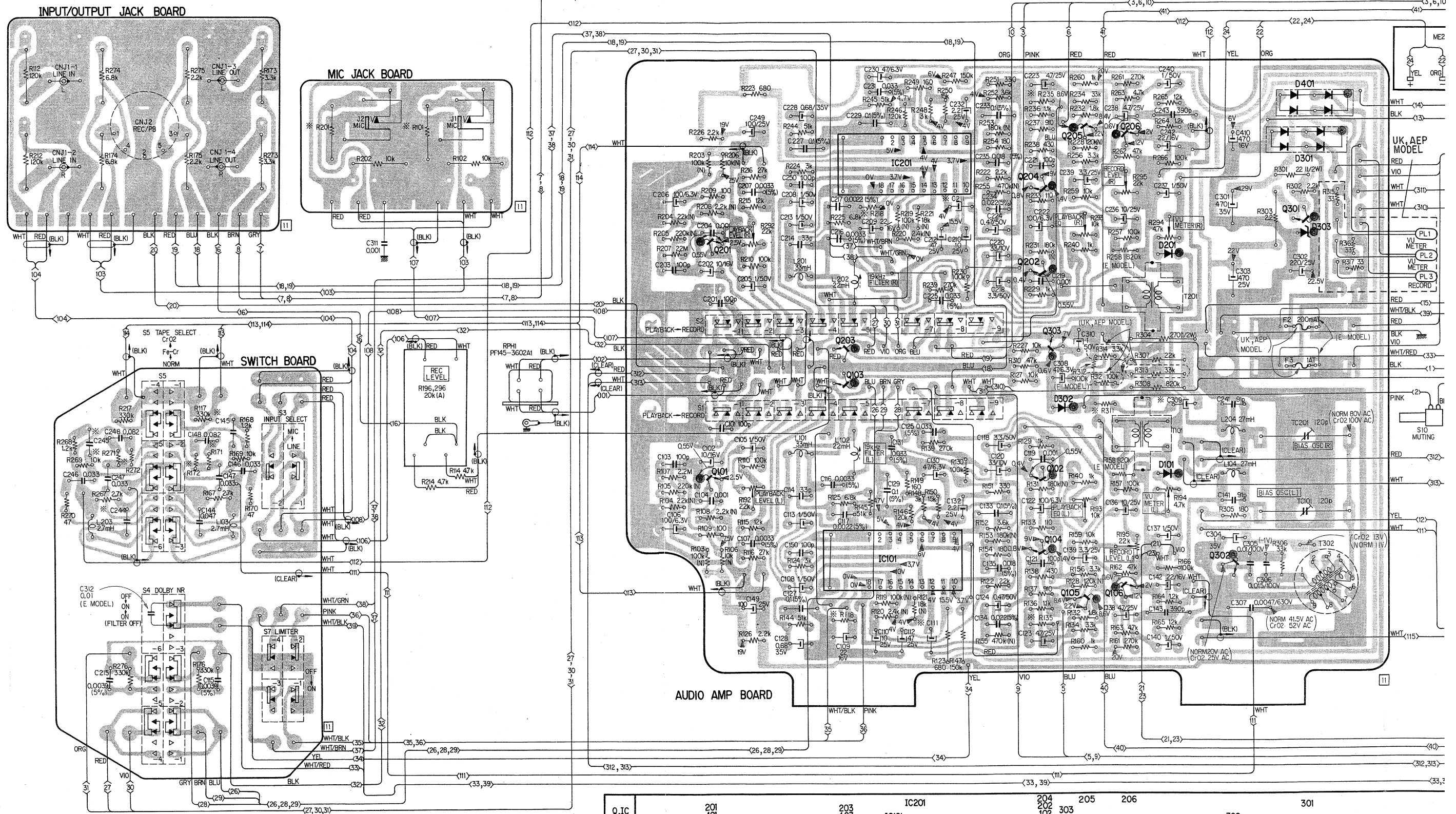
MEMO

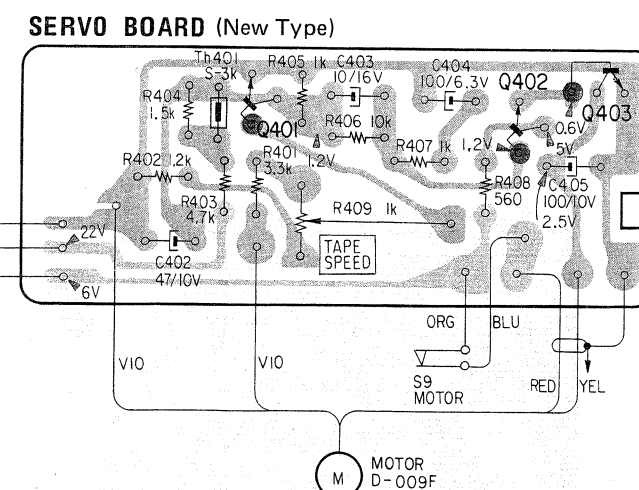
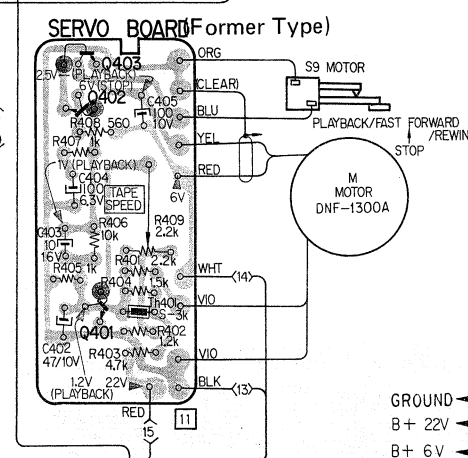
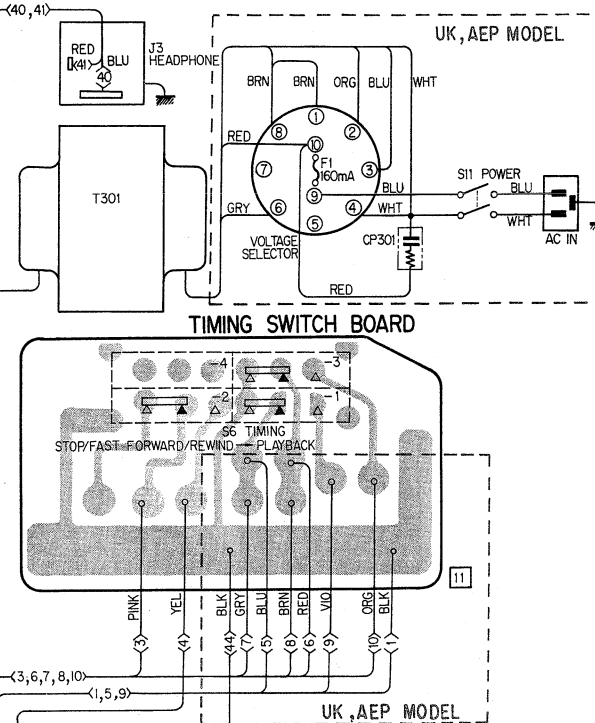
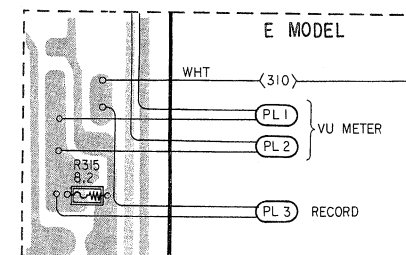
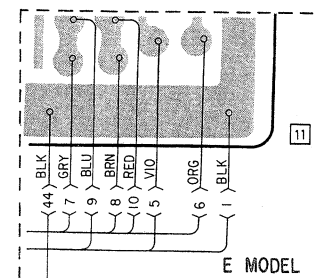
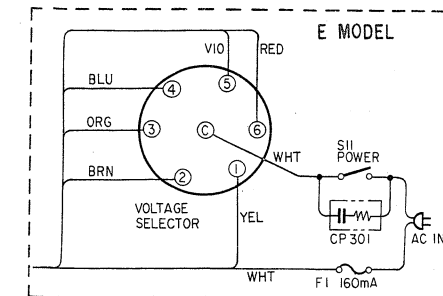
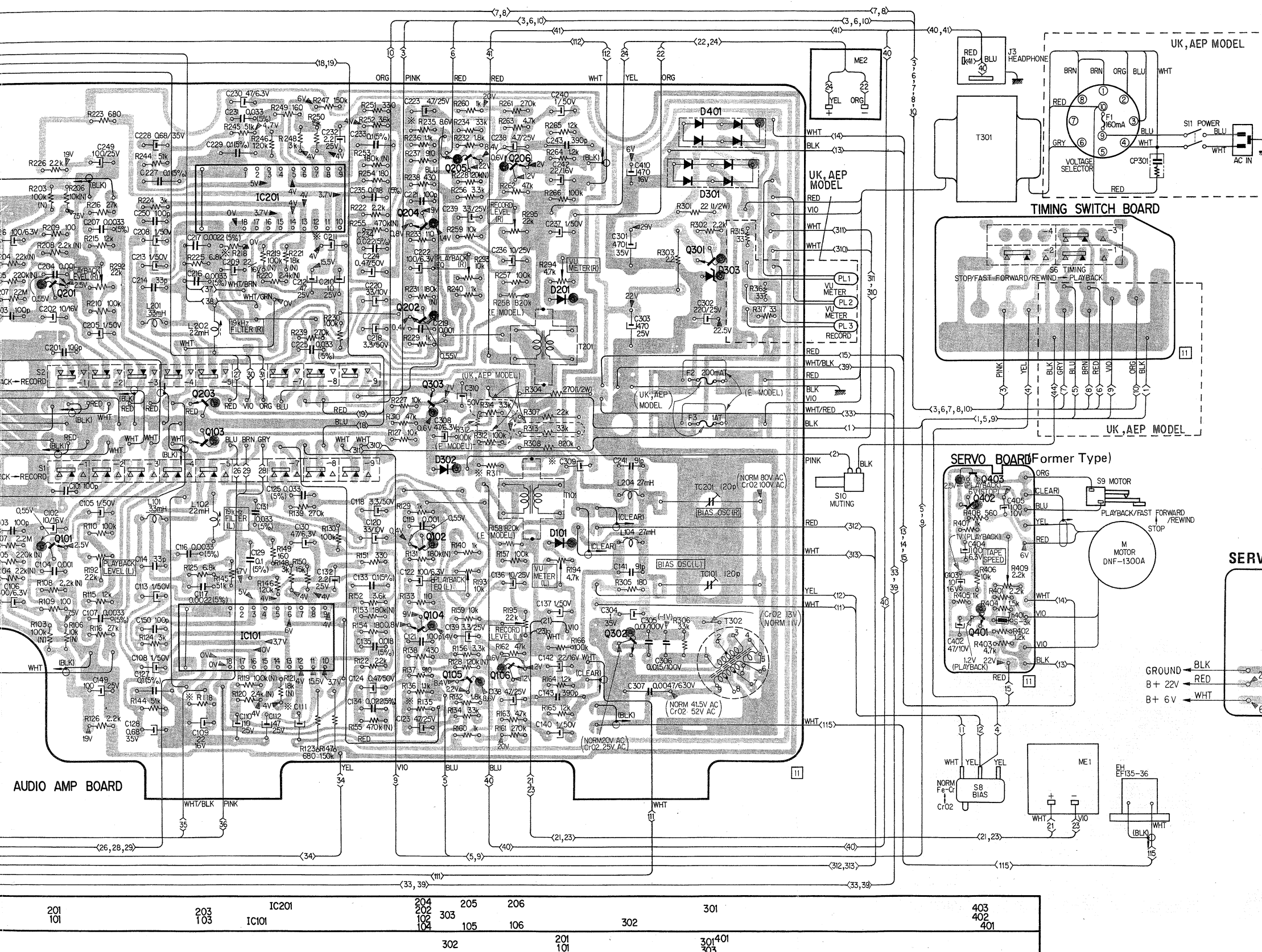
Lined area for notes.

SECTION 3 DIAGRAMS

3-1. MOUNTING DIAGRAM (UK, AEP and E Model)

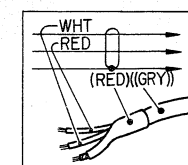
— Conductor Side —





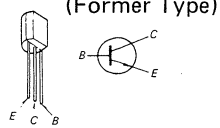
Note:

- B+ pattern
- Color code of sleeving over the end of the jacket.

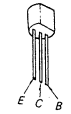


3-2. SCHEMATIC DIAGRAM (UK, AEP and E Model)

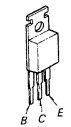
Q101, 201: 2SC1362
Q103 ~ 106, 2SC945Q
Q203 ~ 206
Q303: 2SC945
Q401, 402: 2SC1364
(Former Type)



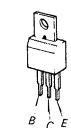
Q102, 202: 2SC900E
Q302: 2SC1383



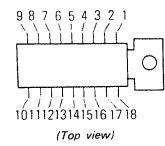
Q301: 2SC1173Y



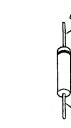
Q403: 2SC1761



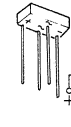
IC101, 201: CX064



D101, 201: 1T22
D302: 1T40



D301, 401: SIRB10



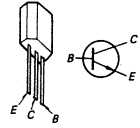
D303: EQA01-22R



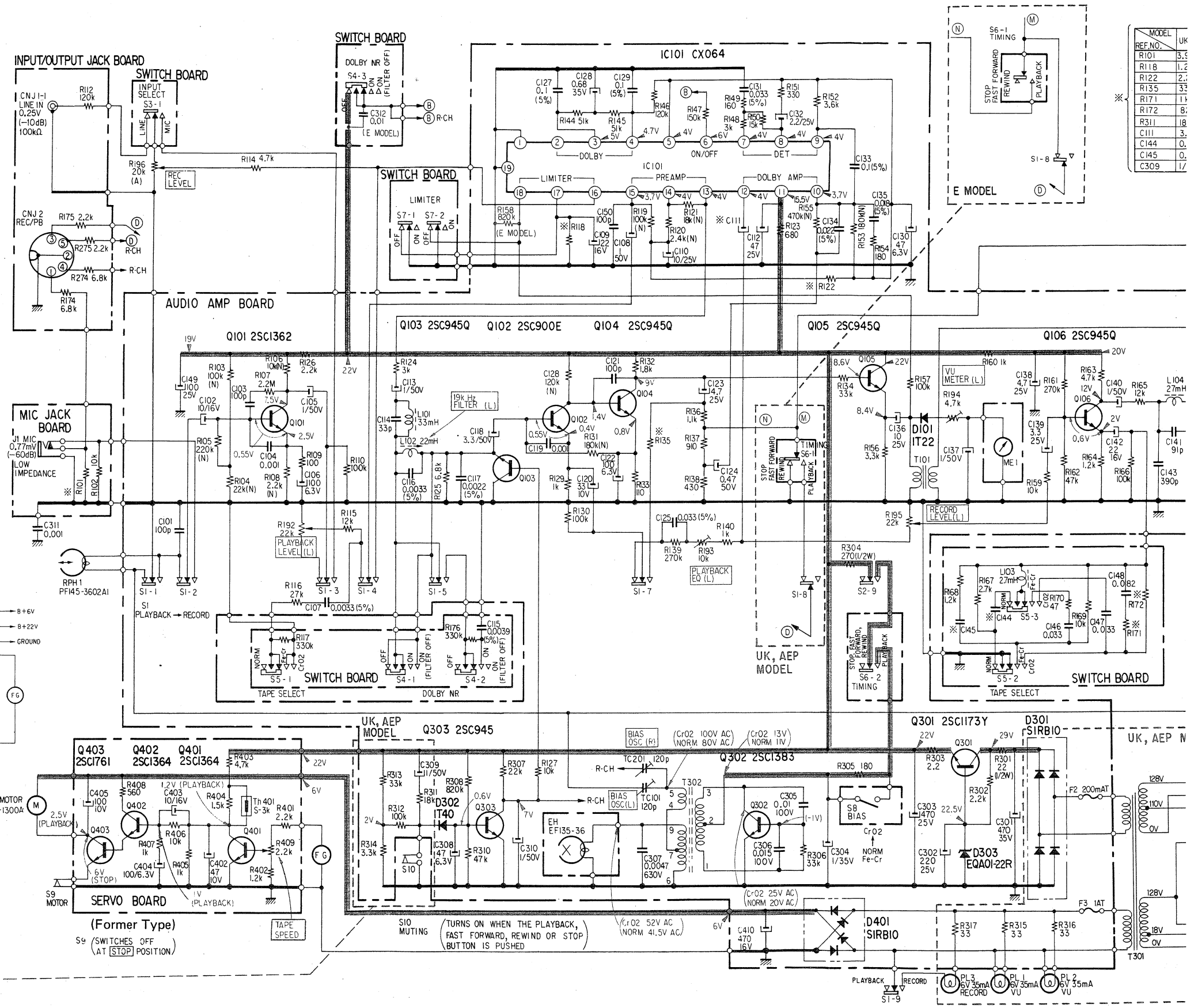
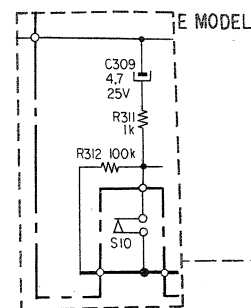
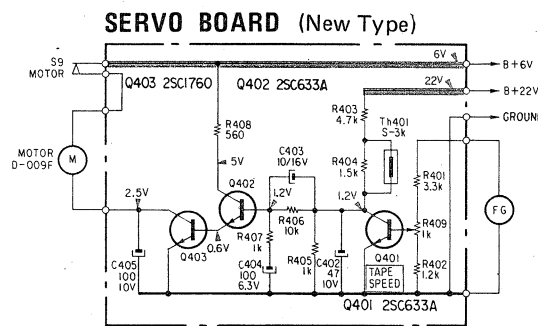
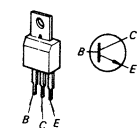
(New Type)

() : Replacement Semiconductor

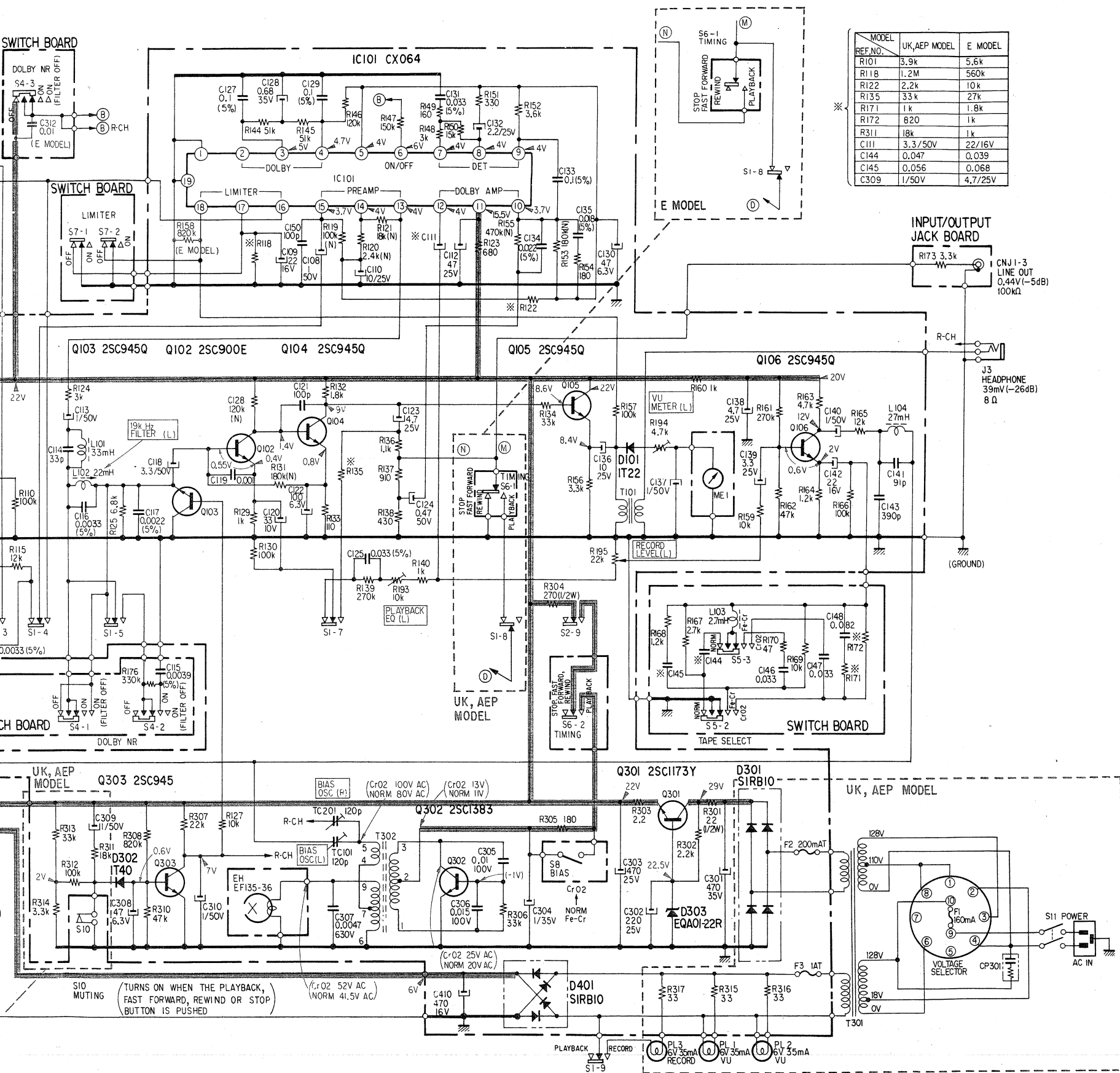
Q401, 402: 2SC633A
(2SC634A)



Q403: 2SC1760



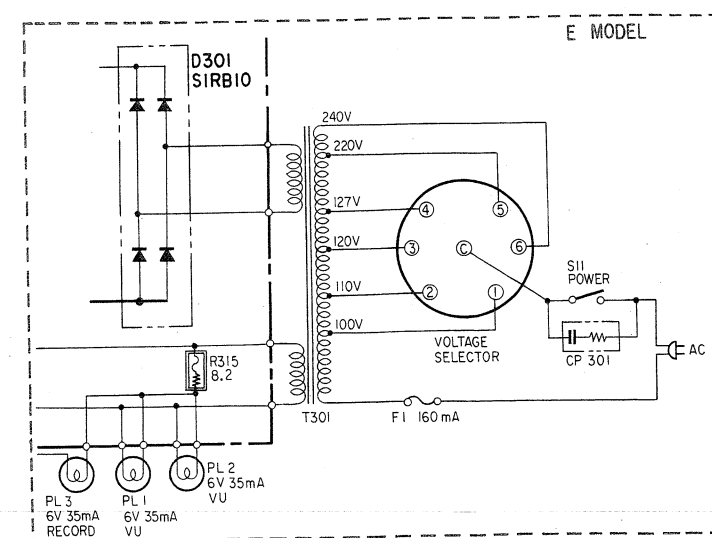
REF. NO.	UK
R101	3.3k
R118	1.2k
R122	2.2k
R135	3.3k
R171	1.1k
R172	8.2k
R311	18k
C111	3.3k
C144	0.01
C309	1/1



Note:

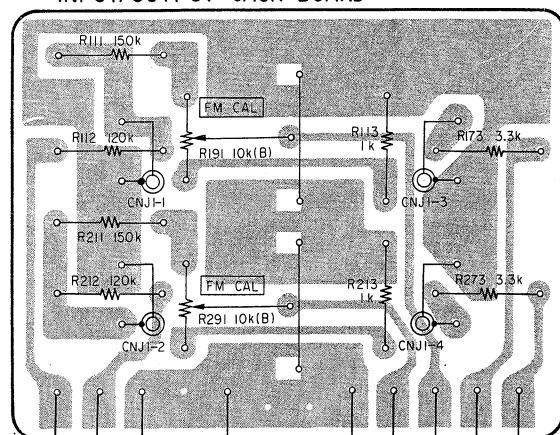
- All capacitors are in μF unless otherwise noted. 50 or less working volts are omitted except for electrolytic type. $\mu = \mu\text{F}$.
- $\left\{ \begin{matrix} C000 \\ 0.000 \\ (\%) \end{matrix} \right\} = \left\{ \begin{matrix} C000 \\ 0.000 \\ (\pm\%) \end{matrix} \right\}$
- All resistors are in Ω , $\frac{1}{4}W$, unless otherwise noted. $k = 1,000$ $M = 1,000k$
- R-CH section circuit are omitted from the diagram. Ref. No. of parts used in R-CH are in 200s.
- --- indicates chassis ground.
- (N) indicates a low-noise resistor.
- --- indicates B+ circuit.
- Voltages are DC with respect to ground unless otherwise noted. Readings taken under no-signal conditions with a VOM (20 $k\Omega/V$). Readings in () are in record mode.
- Voltage variations may be noted due to normal production tolerances.
- AC voltage readings on bias oscillator circuit are taken with a VTVM.
- Voltage between base and emitter are measured with 2.5 V range.
- Switch Mode:

Ref. No.	Switch	Position
S1, 2	RECORD/playback	playback
S3	INPUT SELECT	LINE
S4	DOLBY NR	OFF
S5	TAPE SELECT	NORM
S6	timing	OFF
S7	LIMITER	OFF
S8	bias	NORM, Fe-Cr
S9	motor	OFF
S10	muting	ON
S11	POWER	OFF

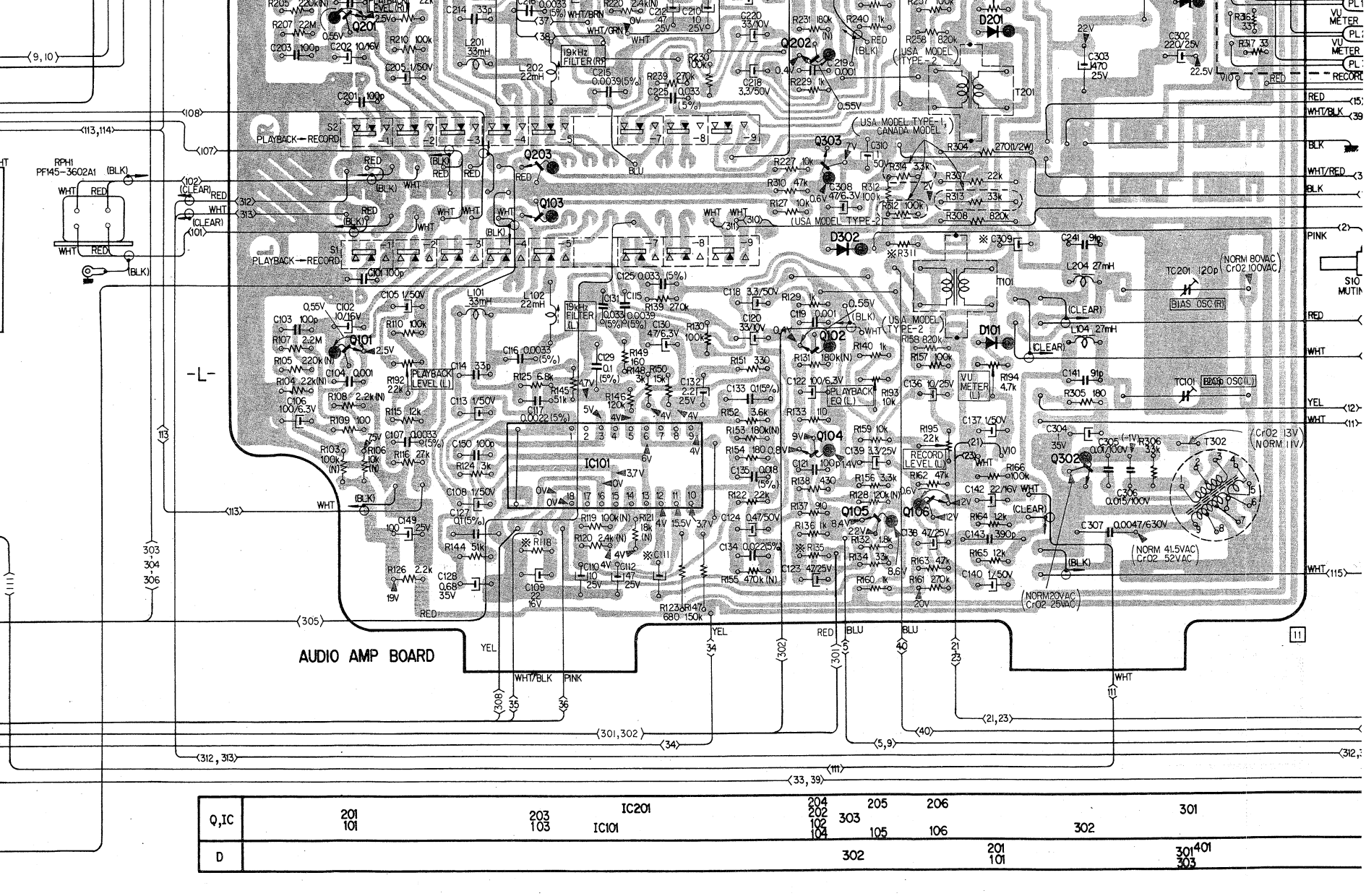
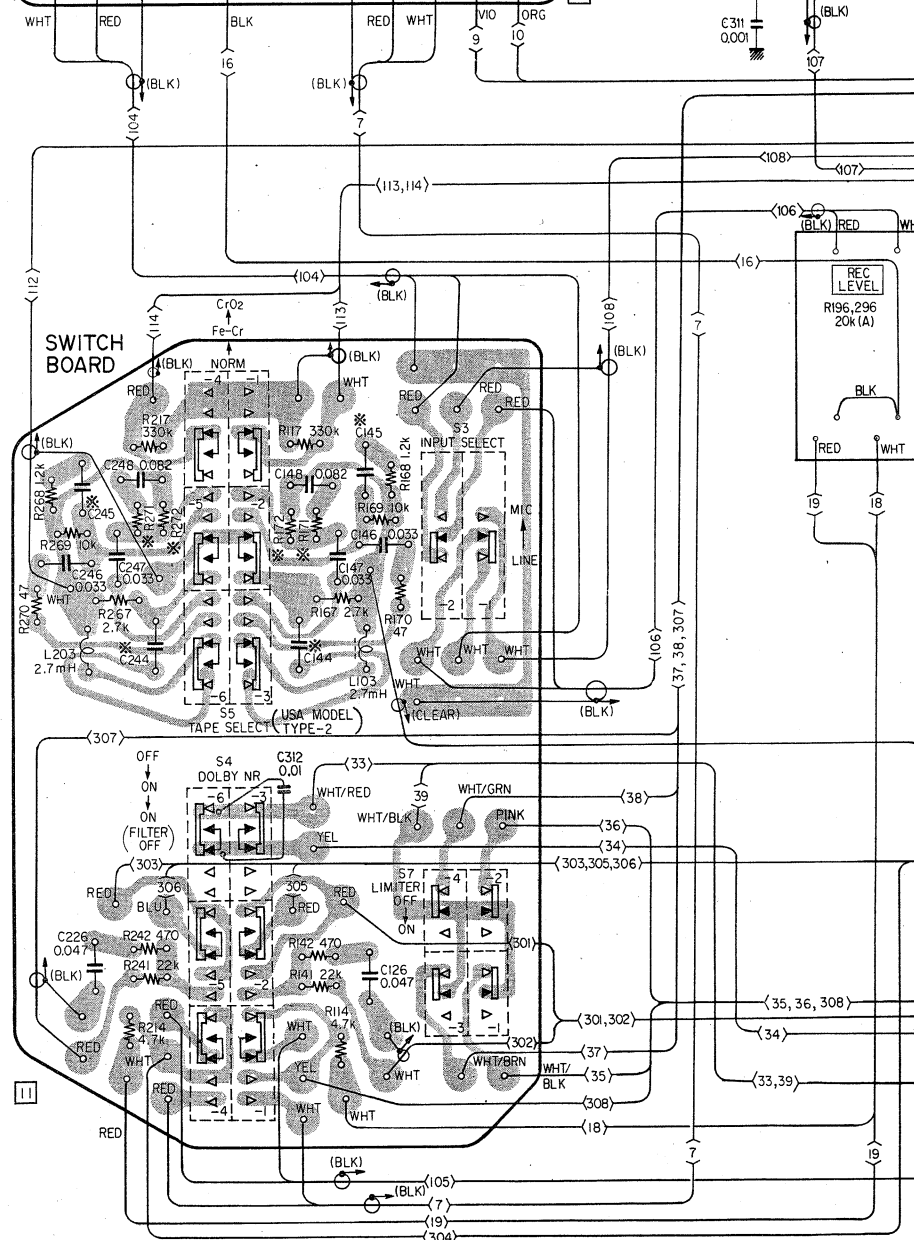
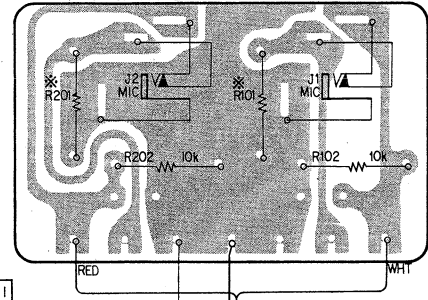


3-3. MOUNTING DIAGRAM (USA and Canada Model)

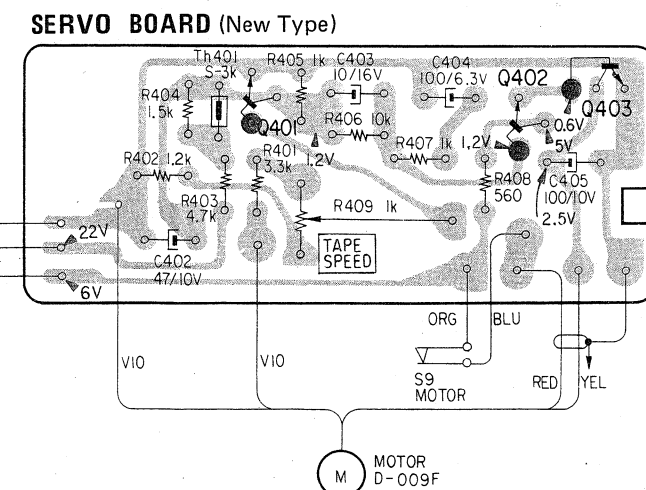
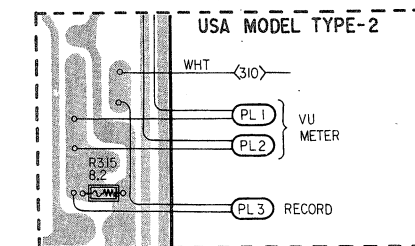
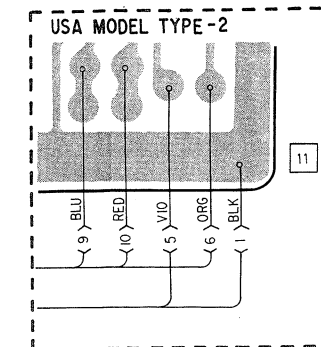
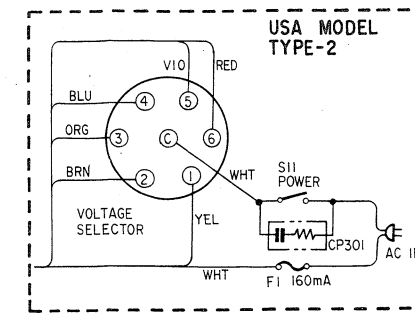
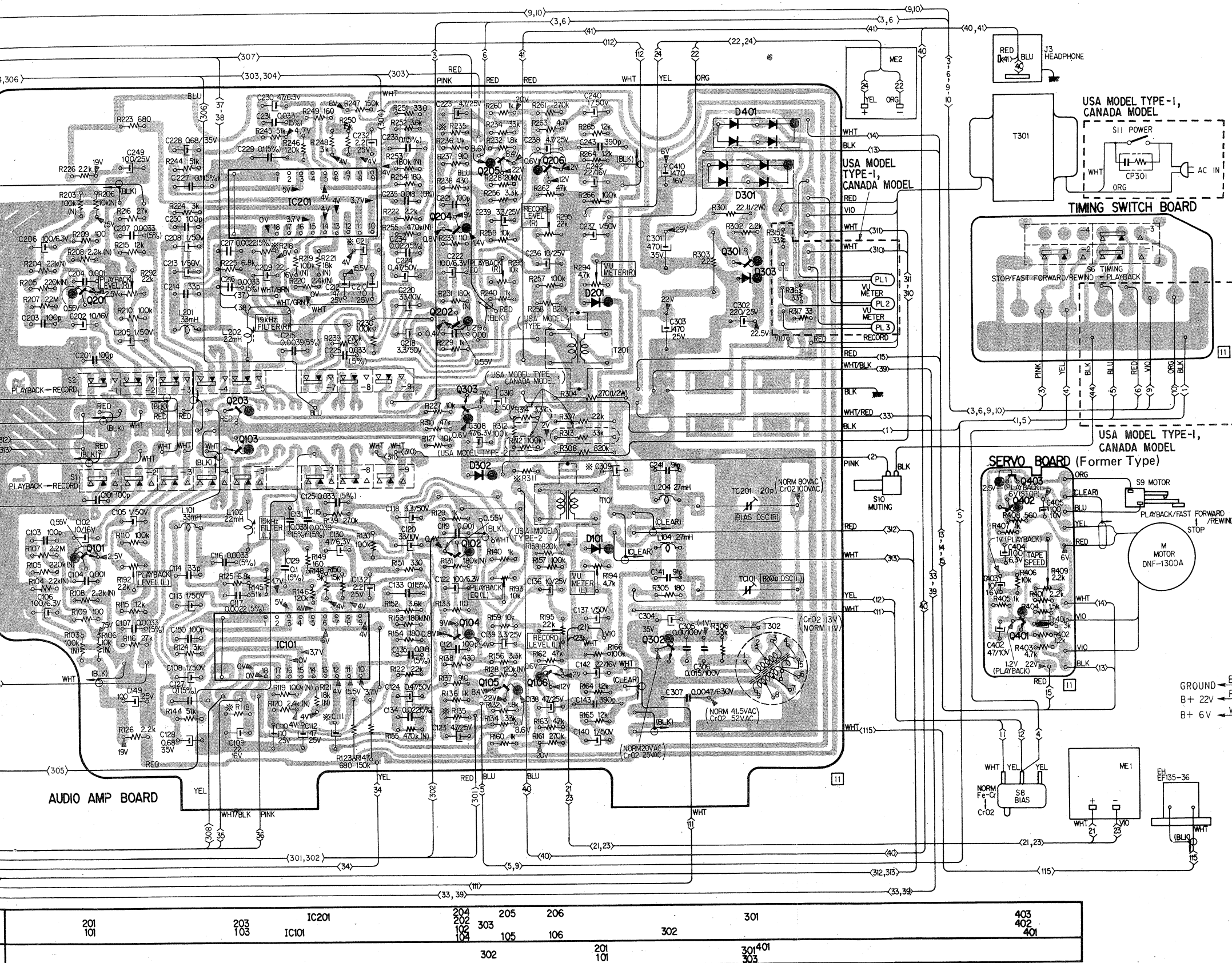
— Conductor Side —
INPUT/OUTPUT JACK BOARD



MIC JACK BOARD

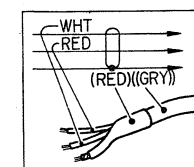


Q, IC	201	203	IC201	204	205	206	301
D	101	103	IC101	102	105	106	301
				302		201	301
					101		301



Note:

-  B+ pattern
- Color code of sleeving over the end of the jacket.

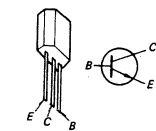


3-4. SCHEMATIC DIAGRAM (USA and Canada Model)

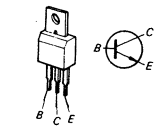
Q101, 201: 2SC1362
Q103 ~ 106: 2SC945Q
Q203 ~ 206: 2SC945
Q303: 2SC945
Q401, 402: 2SC1364
(Former Type)

(New Type)
(): Replacement Semiconductor

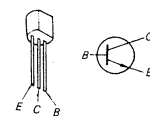
Q401, 402: 2SC633A
(2SC634A)



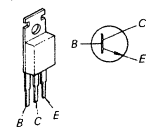
Q403: 2SC1760



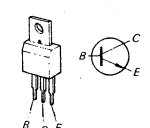
Q102, 202: 2SC900E
Q302: 2SC1383



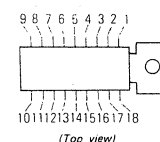
Q301: 2SC1173Y



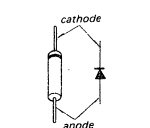
Q403: 2SC1761



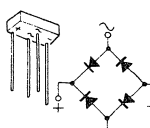
IC101, 201: CX064



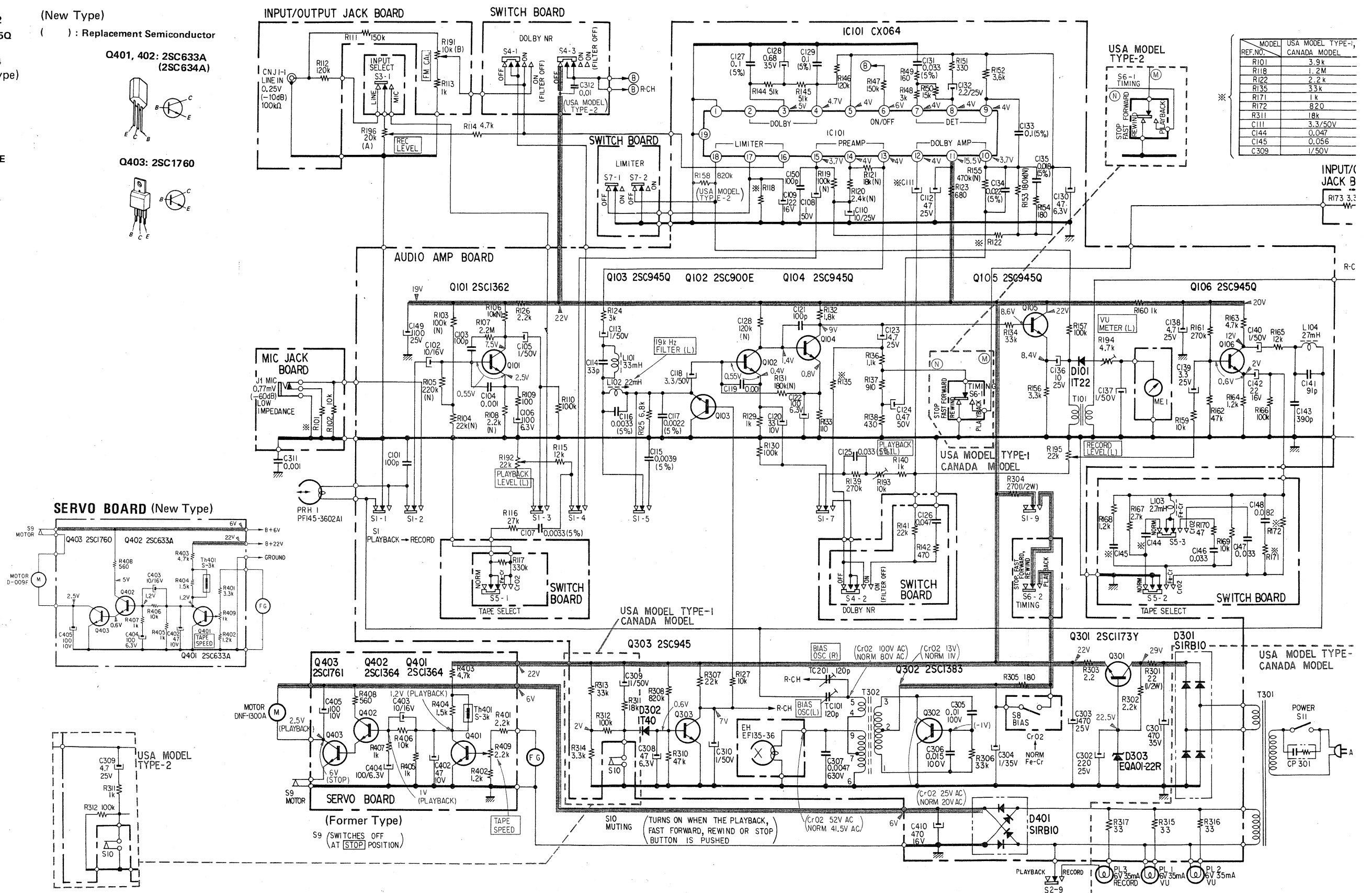
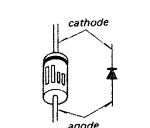
D101, 201: 1T22
D302: 1T40



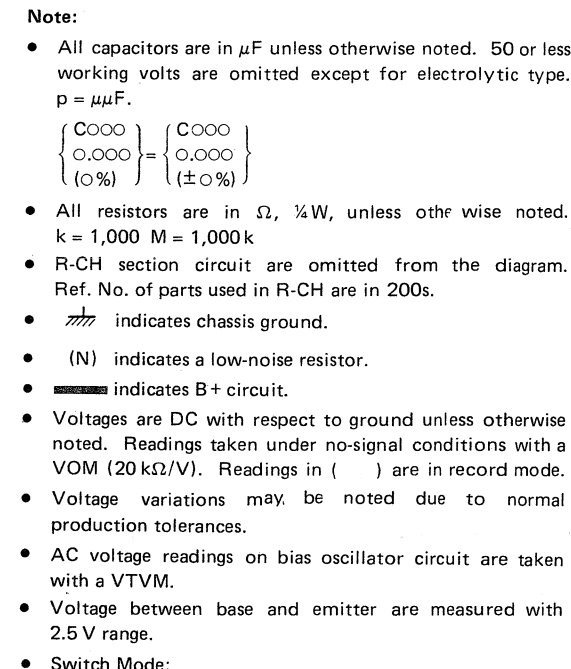
D301, 401: SIRB10



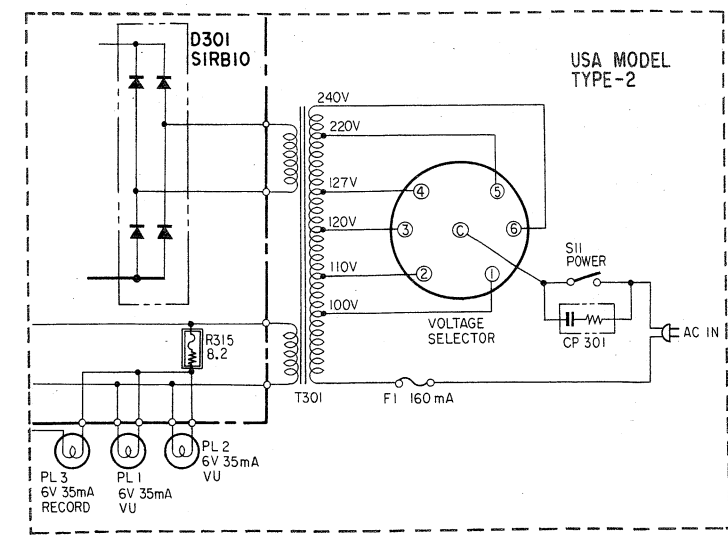
D303: EQA01-22R



MODEL	USA MODEL TYPE-1	CANADA MODEL
REF. NO.		
R101	3.9k	
R118	1.2M	
R122	2.2k	
R135	33k	
R171	1k	
R172	820	
R311	18k	
C111	3.3/50V	
C144	0.047	
C145	0.056	
C309	1/50V	

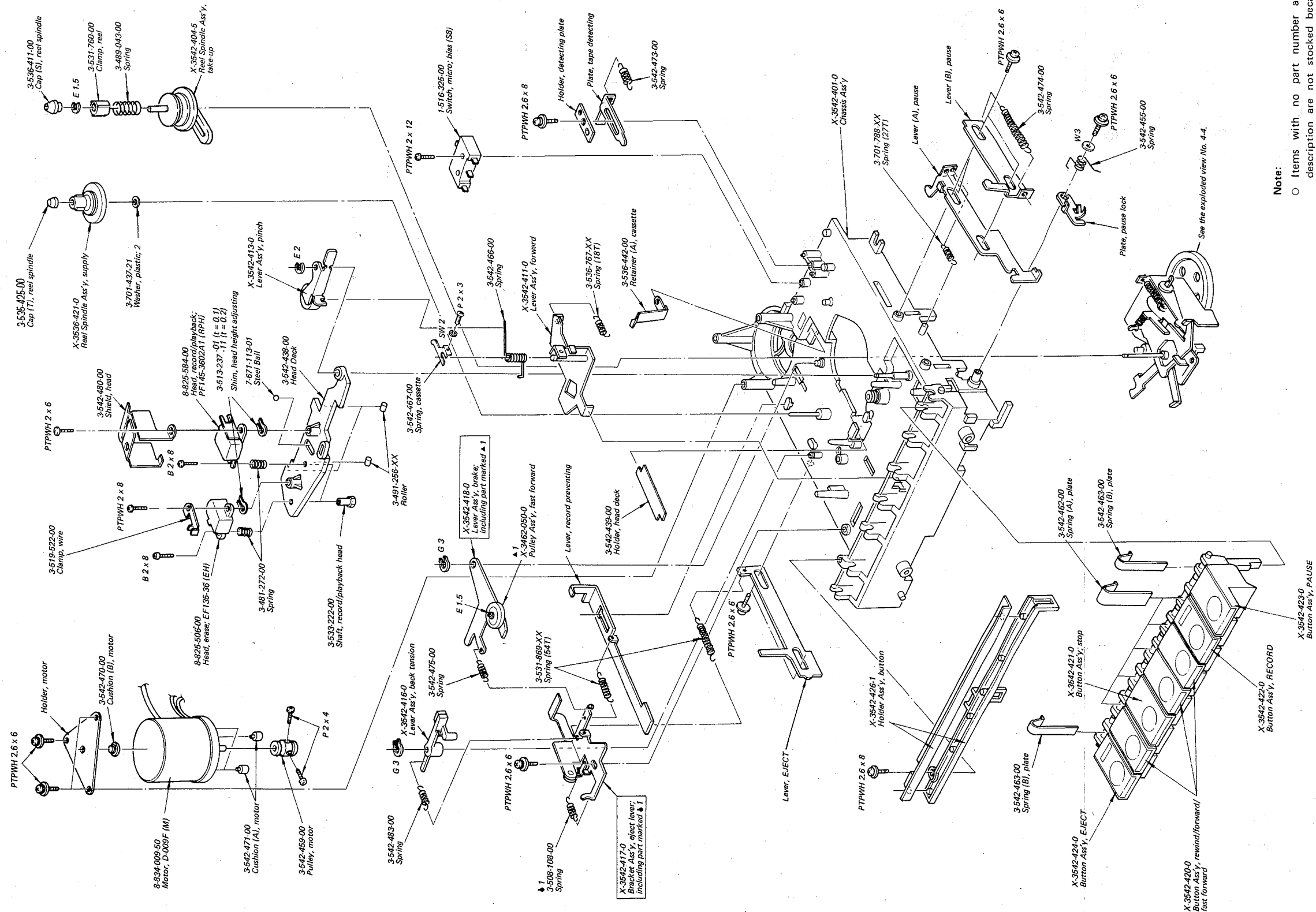


Ref. No.	Switch	Position
S1, 2	RECORD/playback	playback
S3	INPUT SELECT	LINE
S4	DOLBY NR	OFF
S5	TAPE SELECT	NORM
S6	timing	OFF
S7	LIMITER	OFF
S8	bias	NORM, Fe-Cr
S9	motor	OFF
S10	muting	ON
S11	POWER	OFF



4-3.

TC-1 35SD TC-1 35SD



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (—) = slotted head
- (□□□) shows the number of coils in spring.

SECTION 5

PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
CIRCUIT BOARDS			TRANSFORMERS			C126, 226			C402		
A-2020-018-A	Servo, complete	(former type)	T101, 201	1-427-299-00	Output	0.047			1-121-352-11	47	10 V
A-2020-030-A	Servo, complete	(new type)	T301	1-442-084-00	Power (USA Model)	(USA, Canada Model)			1-121-651-11	10	16 V
A-2023-096-A	Timing Switch, complete			1-442-654-00	Power (AEP, UK Model)	C127, 227	1-108-603-12	0.1 5 %	1-121-413-11	100	6.3 V
				1-442-171-00	Power (Canada Model)	C128, 228	1-131-214-11	0.68 35 V	1-121-414-11	100	10 V
SEMICONDUCTORS			T302	1-433-132-11	Bias OSC	C129, 229	1-108-603-12	0.1 5 %	C410	1-121-426-11	470 16 V
Transistors			CAPACITORS			C130, 230	1-121-352-11	47 10 V			
Q101, 201	2SC1362 (2SC632A)		All capacitors are in μ F unless otherwise indicated. 50 or less working volts are omitted except for electrolytic type. (elect = electrolytic, p = μ F)						RESISTORS		
Q102, 202	2SC900E (2SC632A)					C131, 231	1-108-591-12	0.033 5 %	All resistors are in ohms. Regular-type $\pm 5\%$ $\frac{1}{4}$ W carbon and composition resistors are omitted. Check the schematic diagram for the resistance values. (k = 1,000)		
Q103 ~ 106	2SC945Q (2SC1364)					C132, 232	1-121-986-11	2.2 50 V			
Q203 ~ 206			C101, 201	1-102-106-11	100 p	C133, 233	1-108-603-12	0.1 5 %	R191, 291	1-224-579-00	10 k
Q301	2SC1173Y		C102, 202	1-121-916-11	10 16 V	C134, 234	1-108-587-12	0.022 5 %	variable FM CAL (USA, Canada Model)		
Q302	2SC1383 (2SC1384)		C103, 203	1-102-106-11	100 p	C135, 235	1-108-585-12	0.018 5 %	R192, 292	1-224-253-XX	22 k
Q303	2SC945 (2SC1364)		C104, 204	1-102-074-11	0.001				R193, 293	1-224-252-XX	10 k
Q401, 402	2SC1364		C105, 205	1-121-912-11	1 50 V	C136, 236	1-121-738-11	10 25 V	R194, 294	1-224-251-XX	4.7 k
Q403	2SC1761					C137, 237	1-121-391-11	1 50 V	R195, 295	1-224-253-XX	22 k
IC101, 201	CX064		C106, 206	1-121-413-11	100 6.3 V	C138, 238	1-121-395-11	4.7 25 V			
Diodes			C107, 207	1-108-567-12	0.0033 5 %	$\Rightarrow$ C139, 239	1-121-393-11	3.3 50 V	R196, 296	1-224-752-00	20 k
D101, 201	1T22 (1T22A)		C108, 208	1-121-391-11	1 50 V	C140, 240	1-121-391-11	1 50 V	R301	1-202-533-31	22 $\frac{1}{2}$ W
D301, 401	SIRB10		C109, 209	1-121-479-11	22 16 V				R304	1-202-559-31	270 $\frac{1}{2}$ W
D302	1T40 (1S1555)		C110, 210	1-121-738-11	10 25 V	C141, 241	1-107-084-11	91 p	R315	1-212-855-11	8.2
D303	EQA01-22R (EQB01-22)		$\Rightarrow$ C111, 211	1-121-479-11	22 16 V	C142, 242	1-121-479-11	22 16 V	fusible (E, USA Type-2 Model)		
Th401	1-800-200-00	Thermister, S-3K	C112, 212	1-121-410-11	47 25 V	C143, 243	1-107-232-11	390 p	R409	1-224-177-XX	2.2 k
COILS			C113, 213	1-121-391-11	1 50 V	$\Rightarrow$ C144, 244	1-108-593-11	0.039	adjustable (former type)		
L101, 201	1-407-561-00	33 mH microinductor	C114, 214	1-102-969-11	33 p	$\Rightarrow$ C145, 245	1-108-599-11	0.068	adjustable (new type)		
L102, 202	1-407-240-00	22 mH variable inductor	C115, 215	1-108-569-12	0.0039 5 %	C146, 246	1-108-591-11	0.033	SWITCHES		
L103, 203	1-407-199-XX	2.7 mH microinductor				C147, 247	1-108-591-11	0.033	S1, 2	1-514-976-XX	Lever-slide, RECORD/playback
L104, 204	1-407-211-XX	27 mH microinductor	C116, 216	1-108-567-12	0.0033 5 %	C148, 248	1-108-601-11	0.082	S3	1-516-521-00	Lever-slide, INPUT SELECT
			C117, 217	1-108-563-12	0.0022 5 %	C149, 249	1-121-416-11	100 25 V	S4, 5	1-516-672-00	Lever-slide, DOLBY NR/TAPE SELECT
			C118, 218	1-121-393-11	3.3 50 V	C150	1-107-131-11	100 p	S6	1-516-686-00	Lever-slide, timing
			C119, 219	1-102-074-11	0.0011				S7	1-516-279-00	Lever-slide, LIMITER
			C120, 220	1-121-402-11	33 10 V	C301	1-121-361-11	470 35 V	S8	1-516-325-00	Micro, bias
						C302	1-121-422-11	220 25 V			
			C121, 221	1-102-106-11	100 p	C303	1-121-733-11	470 25 V			
			C122, 222	1-121-413-11	100 6.3 V	C304	1-131-215-11	1 35 V			
			C123, 223	1-121-395-11	4.7 25 V	C305	1-108-377-12	0.01 100 V			
			C124, 224	1-121-726-11	0.47 50 V						
			C125, 225	1-108-591-12	0.033 5 %	C306	1-108-379-12	0.015 100 V	S9, 10	1-516-270-00	Leaf, motor/muting
						C307	1-129-710-11	0.0047 630 V			
						$\Rightarrow$ C308	1-121-352-11	47 10 V			
						$\Rightarrow$ C309, 310	1-121-391-11	1 50 V			
						C311	1-102-074-11	0.001			
						C312	1-101-923-11	0.01			

(): Replacement Parts

Note: $\Rightarrow$: Due to replacement parts, the values are different from on the diagrams.

Ref. No. Part No. Description

JACKS

CNJ1-1~4	1-507-378-XX	Phono, 2 p; LINE IN (USA, Canada Model)
	1-517-433-11	Phono, 4 p; LINE IN (AEP, UK, E Model)
CNJ2	1-509-549-00	Connector, REC/PB (AEP, UK, E Model)
J1, 2	1-507-448-00	MIC
J3	1-507-476-XX	Binaural, HEADPHONE

MISCELLANEOUS

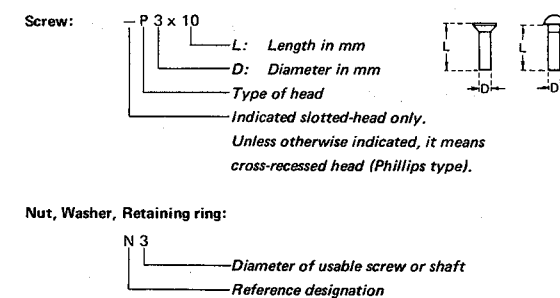
CP301	1-231-057-31	Encapsulated Component, C-R
EH	8-825-506-00	Head, erase; EF135-36
F1	1-532-079-00	Fuse, 160 mA (AEP, UK Model)
	1-532-444-XX	Fuse, 160 mA (E, USA Type-2 Model)
F2	1-532-074-00	Fuse, 200 mA (AEP, UK Model)

Ref. No. Part No. Description

F3	1-532-078-00	Fuse, 1 AT (AEP, UK Model)
M	8-834-009-50	Motor, DNF-1300A
ME1, 2	1-520-114-91	Meter, level
PL1~3	1-518-115-XX	Lamp, 6 V 35 mA
RPH	8-825-584-00	Head, record/playback; PF145-3602A1
	1-509-427-00	Socket, voltage selector (E, USA Type-2 Model)
	1-509-482-00	Socket, voltage selector (AEP, UK Model)
	1-509-546-00	Connector, AC IN (AEP, UK Model)
	1-533-102-XX	Holder, fuse (E, USA Type-2 Model)
	1-534-487-XX	Cord, power (USA, E Model)
	1-534-986-XX	Cord, power (Canada Model)
	1-536-401-XX	Terminal 1L1 (AEP, UK, E Model)

ACCESSORIES

<u>Part No.</u>	<u>Description</u>
X-3701-018-2	Tips Ass'y, head cleaning (AEP, UK, Canada, E, USA Type-2 Model)
1-526-565-00	Adaptor, ac connector (E Model)
1-534-049-51	Cord, connection; RK-74H
1-534-819-00	Cord, power (UK Model)
3-780-833-11	Manual, instruction (AEP, UK, Canada Model)
3-780-833-21	Manual, instruction (USA Type-1 Model)
3-780-833-51	Manual, instruction (E Model)
3-780-833-61	Manual, instruction (USA Type-2 Model)
3-793-359-12	Card, voltage (E Model)
3-793-828-11	Card, caution; tape-cassette
8-890-060-00	Tape, FeCr; C-60 (AEP, UK, Canada USA Type-2 Model)
8-890-062-00	Tape, FeCr; C-60 (USA Type-1 Model)

HARDWARE NOMENCLATURE

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	